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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,989	01/30/2004	Kazuya Nishiga	9333/368	4517

757 7590 10/30/2006

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER

SOBUTKA, PHILIP

ART UNIT PAPER NUMBER

2618

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,989

Applicant(s)

NISHIGA ET AL.

Examiner

Philip J. Sobutka

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3-15, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/30/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fumaro et al (US 6,204,844).

Consider claim 1. Fumaro teaches an inter-vehicle communication apparatus, comprising:

an inter-vehicle communication unit (*Fumaro, see figures 2, 3*) ;

a network-forming processing section for forming a network with surrounding vehicles (*Fumaro see figure 10, column 21, line 12 – column 22, line 60*); and

an information-exchange processing section for performing information-exchange processing between network-forming vehicles, wherein the network-forming processing section comprises a network-forming restriction section for restricting a network-forming area (*Fumaro see figure 10, column 21, line 12 – column 22, line 60*).

As to claim 2, Fumaro teaches an inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section is a first-order-

network restriction section for restricting the forming of a first-order network in which the inter-vehicle communication unit directly performs communications (*note that Fumarolo's network grouping would perform direct communications see figure 10, column 21, line 12 – column 22, line 60*).

As to claim 16 Fumarolo teaches an inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section comprises a storage section for storing in advance at least one restriction value (*Fumarolo see figure 10, column 21, line 12 – column 22, line 60*).

As to claim 17 Fumarolo teaches an inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section restricts the network-forming area by making the inter-vehicle communication unit of the vehicle to which the inter-vehicle communication unit is mounted restrict processing for receiving information sent to the vehicle (*Fumarolo see figure 10, column 21, line 12 – column 22, line 60*).

Allowable Subject Matter

4. Claims 20 and 21 are allowed.

Consider claim 20. The nearest prior art as shown in Fumarolo fails to teach an inter-vehicle communication system, comprising: an inter-vehicle communication apparatus located in each of a plurality of vehicles comprising: an inter-vehicle communication unit for transmitting and receiving information between vehicles; and a network-forming processing section for forming a network among the vehicles and

restricting the size of the network based on at least one of a predetermined number of vehicles permitted in the network, a predetermined number of times a relay process can be performed between a vehicle transmitting information and another vehicle receiving information in the network, a distance of a vehicle from a specific position, and a predetermined time which has elapsed.

Consider claim 21. the nearest prior art as shown in Fumarolo fails to teach a method of operating an inter-vehicle communication system, comprising: providing an inter-vehicle communication apparatus located in each of a plurality of vehicles, said apparatus including an inter-vehicle communication unit for transmitting and receiving information between vehicles; and forming a network among at least some of said plurality of vehicles and restricting the size of the network based on at least one of a predetermined number of vehicles permitted in the network, a predetermined number of times a relay process can be performed between a vehicle transmitting information and another vehicle receiving information in the network, a distance of a vehicle from a specific position, and a predetermined time which has elapsed.

5. Claims 3-15,18,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider claim 3. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 2, wherein the first-order-

network restriction section sends at least a signal indicating the position of the vehicle to which the inter-vehicle communication apparatus is mounted, the position serving as a reference position, and a network-forming-request signal to surrounding vehicles by the use of a tentative PN code known to other vehicles, and surrounding vehicles which receive both of the signals sequentially communicate with a network-forming-request-source vehicle at a timing specified in advance according to the positions of the surrounding vehicles relative to the reference position.

Consider claim 7. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section comprises a relay section for receiving a signal from another vehicle and for sending it to yet another vehicle.

Consider claim 10. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section restricts the network-forming area according to a distance from a specific position.

Consider claim 14. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section restricts the network-forming area according to the time period which has elapsed from when information was requested.

Consider claim 15. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-

forming restriction section restricts the network-forming area according to the type of information to be exchanged between network-forming vehicles.

Consider claim 18. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section restricts the network-forming area by making an information-transmitting vehicle which has received a restriction signal from an information-requesting vehicle not perform information-transmitting processing.

Consider claim 19. The nearest prior art as shown in Fumarolo fails to teach the inter-vehicle communication apparatus according to claim 1, wherein the network-forming restriction section updates vehicles positioned in a network-forming restriction area in response to vehicle movement or the passage of time.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gorday (US 2004/0192331) teaches an arrangement for restricting message transmission, but lacks a teaching of restricting the formation of the network.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4711.

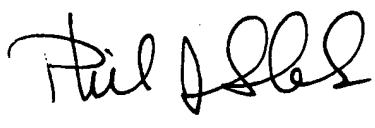
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8. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



10/27/06

PHILIP J. SOBUTKA
PATENT EXAMINER

Philip J Sobutka

(571) 272-7887